Minnesota State Department of Public Safety



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State Fire Marshal Division

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RESORT DISPENSING INFORMATION SHEET

PURPOSE:

To provide for the uniform enforcement of the requirements of 2007 Minnesota State Fire Code [Here after referred to as MSFC (07).] Sections 3406.2 and 2210 as it applies to the dispensing of flammable and combustible liquids at resorts.

SECTION 1 — RESORT DISPENSING

The dispensing of flammable and combustible liquids at resorts shall comply with the applicable MSFC (07) requirements. To determine the applicable requirements, it is first necessary to decide if the dispensing is considered "public" or "private" according to the definitions given below.

Classification of Resort Dispensing

The requirements for resort dispensing are based on the size of tank used to store fuel.

Is the volume of a single above ground tank greater than 560 gallons or the total capacity of all tanks over 1120 gallons?

- If **Yes**, this is <u>public dispensing</u> go to Section 1.1.
- If **No**, this is <u>private dispensing</u> go to Section 1.2.

1.1 Public dispensing

Public dispensing is defined as the dispensing of flammable and/or combustible liquids at resorts for guests and/or the public when the storage of flammable and/or combustible liquids involves the following:

- 1. Any resort having a single aboveground tank with a capacity exceeding 560 gallons.
- 2. Any resort having two or more tanks with an aggregate capacity exceeding 1,120 gallons.

The following provisions shall apply for <u>public dispensing</u> (tank size meeting #1 or #2 above):

New or existing tanks meeting the above requirements shall conform to the provisions of MSFC (07) Chapter 2210, marine motor fuel-dispensing facilities.

Public dispensing operations that involve the filling of fuel tanks on watercraft at resorts shall be considered marine motor vehicle fuel-dispensing stations and shall comply with MSFC (07) Chapter 22, Sections 2201 - 2205 and 2210. The provisions of this section shall apply for dispensers located out on the dock and those located on shore with a hose or piping and nozzle capable of being run out onto the dock.

1.1.2. Supervision

Marine service stations shall have an attendant or supervisor who is fully aware of the operation, mechanics and hazards inherent with fueling of boats on duty whenever the station is open for business. The attendant's primary function is to supervise, control and observe the dispensing of flammable and combustible liquids.

1.1.3 Dispensing at Marinas

A marina shall be defined as a facility serving watercraft having enclosed compartments for human occupancy (i.e. living, sleeping, cooking, eating, etc.) such as houseboats.

1.2 Private dispensing

Private dispensing is defined as the dispensing of flammable and/or combustible liquids at resorts for guests and/or the public when the storage of flammable and/or combustible liquids involves the following:

- 1. Any resort having a single aboveground tank with a capacity of 560 gallons or less, or
- 2. Any resort having two or more tanks with an aggregate capacity of 1,120 gallons or less.

New or existing tanks meeting the definition of private dispensing shall conform to the requirements for storage and dispensing of flammable and combustible liquids on farms and construction sites as covered in MSFC (03) Section 3406.2, except as modified through 1.2.1 to 1.2.15 of this section. Resort installations that do not meet the definition of private dispensing are considered public dispensing and shall meet the requirements above in Section 1.1 to 1.1.3 for public dispensing.

- **1.2.1 Combustibles and open flames near tanks**. Storage areas shall be kept free from weeds and extraneous combustible material. Open flames and smoking are prohibited in flammable or combustible liquid storage areas. [MSFC (07) Section 3406.2.1]
- **1.2.2 Protection from vehicles.** Guard posts or other approved means shall be provided to protect tanks, piping, valves or fittings subject to vehicular damage. [MSFC (07) Section 3403.6.4]
- **1.2.3 Existing fuel oil type tanks.** Storage of gasoline in existing "fuel oil type" tanks shall be permitted.
- **1.2.4. Approved containers.** Only approved containers and portable tanks shall be used. [MSFC (07) Section 3404.3.1.1]
- **1.2.5** Markings of tanks and containers. Tanks and containers for the storage of liquids above ground shall be conspicuously marked with the words: **FLAMMABLE-KEEP FIRE AND FLAME AWAY.** [MSFC (07) Section 3406.2.2]
- **1.2.6 Container for storage and use.** Pumping devices or approved self-closing faucets used for dispensing liquids shall not leak and shall be well maintained. [MSFC (07) Section 3406.2.3]
- **1.2.7 Fill-opening security.** Fill openings shall be equipped with a locking closure device. Fill openings shall be separate from the vent openings. [MSFC (07) Section 3406.2.4.1]
- **1.2.8 Normal venting.** Normal vents for tanks shall terminate not less than 12 feet above the adjacent ground level. The vapors shall be discharged upward so that they will not be trapped by overhanging eaves or other obstructions and shall be at least 5 feet from building openings. [MSFC (07) 3406.2.7.3]
- **1.2.9 Emergency venting.** Emergency vents shall be arranged to discharge in a manner which prevents localized overheating of flame impingements on any part of the tank in the event that vapors from such vent are ignited. [MSFC (07) Section 3404.2.7.4]
- **1.2.10 Location.** Tanks are required to be kept outside and at least 50 feet from buildings and combustible storage, except as modified by the following [MSFC (07) Section 3406.2.4.3]:
 - 1. Tanks are allowed to be no closer than 20 feet from buildings not used for lodging such as garages, boathouses, fish cleaning houses and bait shacks.
 - 2. Two-hour protected tanks installed no closer than 5 feet from buildings not used for lodging.
 - 3. Tanks shall be permitted to be no closer the five (5) feet of any building not being slept in if the tank is separated by a fire wall having not less then a 2-hour fire resistance rating. This wall shall be an unpierced wall extending not less than 30

inches above and to the sides of the storage tank and dispensers or from the roof eves of the building (which ever is lower) to the ground and extended past the tank and pump by at least 30 inches.

- **1.2.11 Tanks with top openings only.** Tanks with top openings shall be mounted as follows:
 - 1. On well-constructed metal legs connected to shoes or runners designed so that the tank is stabilized and the entire tank and its supports can be moved as a unit; or
 - 2. For stationary tanks, on a stable base of timbers or blocks approximately 6 inches in height which prevents the tank from contacting the ground. [MSFC (07) Section 3406.2.5.1]
- **1.2.12 Pumps and fittings.** Tanks with top openings only shall be equipped with a tightly and permanently attached, approved pumping device having an approved hose of sufficient length for filling equipment or containers to be served from the tank. Either the pump or the hose shall be equipped with a padlock to its hanger to prevent pampering. An effective antisiphoning device shall be included in the ump discharge unless a self-closing nozzle is provided. Siphons or internal pressure discharge shall not be used. [MSFC (07) Section 3406.2.5.1.1]
- **1.2.13 Tanks with gravity discharge.** Tanks with a connection in the bottom or the end for gravity-dispensing liquids shall be mounted and equipped as follows:
 - 1. Supports to elevate the tank for gravity discharge shall be designed to carry all required loads and provide stability.
 - 2. Bottom or end openings for gravity discharge shall be equipped with a valve located adjacent to the tank shell which will close automatically in the event of fire through the operation of an effective heat-activated releasing device. Where this valve cannot be operated manually, it shall be supple-mounted by a second manually operated valve. The gravity discharge outlet shall be provided with an approved hose equipped with q self-closing valve at the discharge end of a type that can be padlocked to its hanger.

 [MSFC (070 Section 3406.2.5.2.]
- **1.2.14 Spill control, drainage control and diking.** Spill control, drainage control and diking are to be provided as required by MSFC (07) Section 3404.2.10, except as modified below:
 - 1. Double walled tanks are considered to meet the requirements.
 - 2. If the individual inspector has determined that a particular tank installation does not constitute a distinct hazard to other tanks, waterways, structures or adjoining property tanks, spill control, drainage control and diking according to MSFC (07) Section 3404.2.10 need not be provided. If the inspector determines that a particular tank installation does not constitute a distinct hazard as set forth above,

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this shall be documented in writing on the inspection report. [MSFC (07) Section 3406.2.6.]

1.2.15 Portable fire extinguishers. Portable fire extinguishers with a minimum rating of 20- BC and complying with MSFC (07) Section 906 shall be provided no closer then 20 feet but within 100 feet of the dispensing area. [MSFC (07) Section 3406.2.7.]

Minnesota Pollution Control Agency. MPCA rules supersede those of the MSFC. All questions about private above ground dispending should also be directed to the MPCA regional office.

Plan Review. Above ground storage tanks installed at resorts for private dispensing according to this section **do not** require a plan review by the SFMD. However, local fire officials are still required to be notified of any installations within their jurisdiction and may require plan review documents be submitted to them before installation.

RATIONALE:

The hazards of resort dispensing are similar to the hazards of dispensing following MSFC (07) Section 3406.2 for private use on farms and construction sites based on the following:

- Remote nature of the installations.
- Limited quantities of fuels dispensed.
- Fewer members of the public exposed at any one time.
- Dispensing is usually conducted by the owner/operator.
- Hardship is involved in underground tank installations considering the limited quantities of fuel dispensed.